CONSTRUCTION DETAILS

A. INSTALL 12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (CROSSWALK).
B. INSTALL 24" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (STOP LINE).
C. INSTALL GROUND MOUNTED SIGN ON 4" x 6" WOOD SUPPORTS.
D. INSTALL MICRO-LOOP PROBE SET AT STA. 595+50.
E. INSTALL MICRO-LOOP PROBE SET AT STA. 600+18.
F. INSTALL MICRO-LOOP PROBE SET AT STA. 602+25.
G. INSTALL SIGNAL HEAD ONTO EXISTING MAST ARM.
H. INSTALL SIGN ONTO EXISTING MAST ARM.
J. INSTALL 6 FT. X 6 FT. LOOP DETECTOR, FOUR TURNS.
K. PROPOSED VIDEO DETECTION ZONE.
L. REMOVE EXISTING SIGN FROM MAST ARM.
M. REMOVE EXISTING SPAN WIRE, TRAFFIC SIGNAL HEADS, AND CABLE.
N. REMOVE EXISTING SPAN WIRE AND CABLE.
P. REMOVE EXISTING STRAIN POLE.
R. REMOVE EXISTING POLE FOUNDATION TO 1 FT. BELOW FINAL GRADE.
S. USE EXISTING MAST ARM AND RELOCATE EXISTING SIGNAL HEADS AND SIGNS, AS DIRECTED BY THE ENGINEER.
T. PAVEMENT MARKING ARROW INSTALLED UNDER SIGNING AND MARKING PLANS.

PROJECT DESCRIPTION

THIS PORTION OF THE PROJECT INVOLVES THE COMPLETE RECONSTRUCTION OF THE TRAFFIC SIGNAL AT MD 139 (CHARLES STREET) AND TOWSONTOWN BOULEVARD IN BALTIMORE COUNTY. MD 139 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

I. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A FOUR PHASE FULL-TRAFFIC-ACTUATED MODE WITH THE MD 139 APPROACHES RUNNING CONCURRENTLY. THE TOWSONTOWN BLVD. APPROACH WILL OPERATE ALONE. EXCLUSIVE LEFT TURN PHASING WILL BE PROVIDED FOR THE SOUTHBOUND MD 139 APPROACH AND WILL RUN CONCURRENTLY WITH THE TOWSONTOWN BLVD. RIGHT TURN. PEDESTRIAN PHASING WILL BE PROVIDED ACROSS THE EAST LEG OF THE INTERSECTION.

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND TELEPHONE NUMBER.

CONTROLLER REQUIREMENTS

A FULLY-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER WITH A VIDEO DETECTION SYSTEM, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, TELEMETRY MODULE, ISOLATION BOARD, SPECIAL RELAY, LOOP DETECTOR AMPLIFIER AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET WILL BE UTILIZED.

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-321-2781 OR 410-321-2885

MS. SUENETTE POPE
UTILITIES ENGINEER
410-321-2841

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-321-2764

THE POWER COMPANY REPRESENTIVE:

MR. HENRY SMIT
BGE
410-859-9064
WMS #948109

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
410-787-7676

MR. MIKE STOCKER
SIGNAL SHOP WAREHOUSE
410-787-7696

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	24	25	26	27	28	32	13,14, 29,30	
Phase 2 & 5	R	REMOVED UNDER PHASE 4	REMOVED UNDER PHASE 4	REMOVED UNDER PHASE 1	REMOVED UNDER FINAL PHASE	◁G-	G	G	R	REMOVED UNDER PHASE 4	R	REMOVED UNDER PHASE 4	R	R	R	G	G	◁G-	DW	
5 Change	R					◁Y-	G	G	R		R		R	R	R	Y	Y	◁Y-	DW	
Phase 2 & 6 Ped	G					◁R-	G	G	R		R		G	G	R	R	R	◁R-	WK	
2 & 6 Ped Clear	G					◁R-	G	G	R		R		G	G	R	R	R	◁R-	FL/DW	
2 & 6 Change	Y					◁R-	Y	Y	R		R		Y	Y	R	R	R	◁R-	DW	
Phase 4	R					◁R-	R	R	G		G		R	R	G	G	G	◁R-	DW	
4 Change	R					◁R-	R	R	Y		Y		R	R	Y	G	G	◁R-	DW	
Flashing Operation	FL/Y					FL/◁R-	FL/Y	FL/Y	FL/R		FL/R		FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/◁R-	DARK	

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

SPEC. NO.	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
813	973023	32 S.F.	SHEET ALUMINUM SIGN
			- 2 EACH R3-5(L) (30" x 36")
			- 4 EACH W11-2 (FYG) (30" x 30")

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

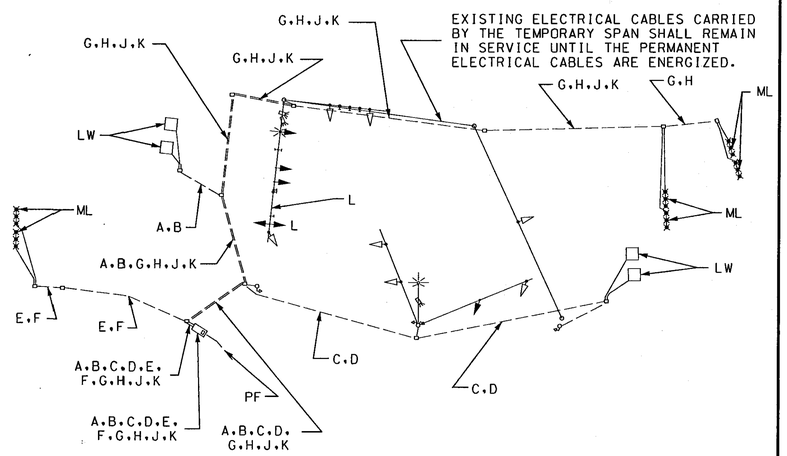
SPEC. NO.	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
104	120500	L.S.	MAINTENANCE OF TRAFFIC
556	585620	340 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
556	585624	160 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
812	801106	50 L.F.	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
---	810550	4 EA.	MIRCOLOOP PROBE, 500 FOOT LEAD IN CABLE
---	810555	2 EA.	MIRCOLOOP PROBE, 1000 FOOT LEAD IN CABLE
813	813014	17 S.F.	INSTALL GROUND MOUNTED SIGN
813	813015	15 S.F.	INSTALL OVERHEAD SIGN
814	860265	5 EA.	RELOCATE EXISTING SIGNAL HEAD
814	860272	3 EA.	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
810	861104	425 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINIUM SHIELDED: NO. 14 A.W.G.)
810	861107	35 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
810	862101	450 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
815	862102	350 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
---	800000	L.S.	REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT
---	800000	1 EA.	RELOCATE EXISTING SIGN ON MAST ARM

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY	DESCRIPTION
ALL REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR	

WIRE DIAGRAM



NOTE: THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL UNUSED ELECTRICAL CABLES.

WIRING LEGEND

A,B,C,D } 2-CONDUCTOR ELECTRICAL CABLE (ALUMINIUM SHIELDED: NO. 14 A.W.G)
E,F,G,H,J,K } MICRO-LOOP PROBE LEAD-IN CABLE
L } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
PF - EXISTING POWER FEED
LW - LOOP WIRE (NO. 14 A.W.G)
ML - MICRO-LOOP PROBE

FINAL TRAFFIC SIGNAL

SG-11 OF SG-11

RUMMEL, KLEPPER & KAHL, LLP
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TELE:(410)728-2900 FAX:(410)728-3160

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 139 (CHARLES STREET) AND TOWSONTOWN BLVD.
TOWSON, MARYLAND
GENERAL INFORMATION SHEET

DRAWN BY: S.M.H.	F.A.P. NO. SEE TITLE SHEET	TS NO. 1842 B	SHEET NO. 44 OF 59
CHECKED BY: B.L.B.	S.H.A. NO. BA 3065176		
SCALE: NO SCALE	COUNTY: BALTIMORE	T.I.M.S. NO. E546	
DATE: NOVEMBER 2002	LOG MILE: 0301.3901.81		

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